

REMARKS

Claims 1-2 and 4-22 are pending. By this Amendment, the specification and claims 1-2 and 4-16 are amended, claim 3 is canceled without prejudice to a disclaimer of the subject matter contained therein, and claim 22 is added. No new matter has been added.

Claim 1 is amended to substantially include the subject matter of claim 3. The specification, and claims 2 and 4-16 are amended merely to better conform to U.S. practice. Claims 4 and 6 are further amended to revise their dependency. The support for new claim 22 is found through the specification, but particularly in paragraphs [0014] and [0015] in the specification.

Applicants thanks Examiners Harmon and Kim for the courtesies extended to Applicants' representative during the July 24, 2003 personal interview. The points discussed are incorporated into the remarks below and constitute the Applicants' record of the interview.

For at least the following reasons, Applicants submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2 and 4-22 is respectfully requested.

I. Reply to Rejections

On page 2, item 2 of the Office Action, claims 1-13 and 15-21 are rejected under 35 U.S.C. §102(b) over U.S. Patent No. 6,074,332 to Helmstadter et al. (hereinafter "Helmstadter"). The rejection is respectfully traversed.

As agreed during the interview, Helmstadter fails to disclose a process for folding sheets, comprising conveying the folded sheet further by the incipient-folding rollers perpendicularly to the feed plane, wherein the folded sheet is received between at least two removal rollers, as recited in claim 1.



Further, as agreed during the interview, Helmstadter fails to disclose an apparatus for folding sheets having at least two incipient-folding rollers which are arranged parallel to the feed plane and which the axes of rotation run parallel to the edge in each case, as recited in claim 9.

Helmstadter discloses that the axes of transport roller rotation 62a-62g and the axes of pressing roller rotation 64a-64g are at right angles to the roller support means 58. Further, Helmstadter discloses that the axes of rotation for the cylindrical pressure rollers 68 is the same as the transport rollers 54 and pressing rollers 56, i.e., perpendicular to the feed plane (col. 4, lines 37-41, Fig. 2). Therefore, in Helmstadter, the placement of the axes limits the sheet to be conveyed parallel to the feed plane, in contrast to the Applicants' claim of conveying the sheet perpendicularly to the feed plane, as recited in claim 1.

Further, because the axes 62 of the transport rollers 54 and the axes of the pressing rollers 56 are perpendicular to the support 42 (Figs. 1-3 of Helmstadter), this is different from the claimed feature of the incipient-folding rollers arranged parallel to the feed plane and of which the axes of rotation (of the two incipient-folding rollers) run parallel to the edge, as recited in claim 9.

Consequently, claims 1 and 9 are patentable over Helmstadter.

Further, Helmstadter fails to suggest the claimed subject matter in claims 1 and 9.

Helmstadter, on the other hand, discloses a knife folder 10, which has several pairs of conveying rollers arranged parallel to the direction of the knife 34 (Fig. 2). Each pair comprises transport rollers 54a-54g and pressing rollers 56a-56g. Both roller types have the shape of a truncated cone (Fig. 1). The transport rollers are actuated by transport roller drive means 60a-60g. The pressing rollers are actuated by a direct or indirect contact with the transport rollers. All rollers are rotatable about axes of rotation running perpendicular to the



feed plane (shown by support 42), as seen from reference numerals 62a-62g, corresponding to the axes of rotation of the transport rollers.

The knife folder further comprises pairs of cylindrical pressure rollers 68a-68d arranged side-by-side with the respective outermost pair of conveying rollers. For folding a sheet, the knife is moved down and pushes the sheet between the conveying rollers. The sheet is then conveyed in the direction of the fold, first by the conveying rollers, then by the pressure rollers (col. 5, line 18 - col. 6, line 17).

The Helmstadter folder thus belongs to the class of folders discussed in the specification (page 1, end of paragraph [0002]), that require further rollers arranged parallel to the incipient-folding rollers for clean folding, which is problematic in case of relatively thick sheets which comprise a plurality of individual sheets or thick paper. Helmstadter attempts to reduce this problem by proposing a conical shape of the conveying rollers in combination with a knife which has recesses 38a-38e corresponding to the position of the conveying rollers in the folding position (col. 4, lines 61-64, Fig. 3).

Therefore, claims 1 and 9 are patentable over Helmstadter, and Helmstadter fails to suggest the features of claims 1 and 9. Claims 2-8, 17 and 20, which depend from claim 1, and claims 10-13, 15-19 and 21, which depend from claim 9, are also likewise distinguishable over the applied references for at least the reasons discussed above and for the additional features they recite. Withdrawal of the rejection of claims 1-13 and 15-21 is respectfully requested.

On page 3, item 4 of the Office Action, claim 6 is rejected under 35 U.S.C. §102(b), or alternatively under 35 U.S.C. §103(a) over Helmstadter. The rejection is respectfully traversed.

As discussed above, Helmstadter neither discloses nor suggests the features of claim 1, from which claim 6 depends from. Consequently, claim 6 is patentable over Helmstadter



at least on the basis of its dependence from claim 1, and for the additional features it recites. Withdrawal of the rejections of claim 6 is respectfully requested.

On page 3, item 5 of the Office Action, claim 14 is rejected under 35 U.S.C. §103(a) over Helmstadter. The rejection is respectfully traversed.

As discussed above, Helmstadter fails to disclose or suggest the features of claim 9, from which claim 14 depends from. Consequently, claim 14 is patentable over Helmstadter at least on the basis of its dependence from claim 9, and for the additional features it recites. Withdrawal of the rejection of claim 14 is respectfully requested.

Finally, new claim 22 is patentable at least on the basis of its dependence from claim 1, and for the additional features it recites.

II. Conclusion

For the reasons stated above, Applicants submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2 and 4-21, as well as new claim 22, is respectfully requested.



Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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